What is claimed is:

1. A method of making an energy conversion device comprising:

(a) processing crystalline films, comprising wide band-gap material that can store isotopes that emit decay energy, by impregnating at least one radioactive isotope into the interstitial voids and crystal boundaries of said films;

(b) assembling a plurality of said radioactive films into a stack;

(c) placing at least one photovoltaic cell in a position to receive photons released from said stack and to convert said photons into electrons;

(d) sealing said device to prevent radioactive leakage but to permit access to the generated electrical energy.

2. The method of claim 1 further comprising applying a reflective material to the assembled film stack in order to trap emitted photons and increase the likelihood of photon passage through said at least one photovoltaic cell.

3. The method of claim 1 further comprising using phosphors or wavelength shifting media to convert the emitted radiation at a first frequency to a second frequency at which said photovoltaic cells are responsive.

4. The method of claim 1 wherein said wide band gap material comprises at least one of diamond, SiC, GaN and AlN.

5. The method of claim 1 wherein said impregnating step comprises a forced diffusion process.

6. The method of claim 1 wherein said isotope comprises at least one of atomic tritium, molecular tritium, atomic hydrogen, molecular hydrogen, and krypton-85.

7. The method of claim 4 further comprising stressing said material to enhance its performance as a direct band-gap material.

8. The method of claim 7 wherein said stressing step comprises at least one of packing interstitial sites with atoms, growing said material with lattice mismatch and ion implantation.

9. The method of claim 1 further comprising providing conductors for gathering said electrons to achieve a desired voltage and current.

10. The method of claim 1 wherein said isotope provides nuclear emissions comprising at least one of beta particles, alpha particles, and other ions, and further comprises the application of a compatible crystalline energy conversion material.

11. The method of claim 1 wherein said isotope provides nuclear emissions comprising at least one of gamma ray photons and x-ray photons, and further comprises the application of a compatible crystalline energy conversion material.

12. The method of claim 1 wherein said isotope provides nuclear emissions comprising at least neutrons, and further comprises the application of a compatible crystalline energy conversion material.

13. The method of claim 1 wherein said isotope is impregnated at densities between 100 ppm and 1,500,00 ppm.

14. The method of claim 4 wherein said diamond comprises a single crystal diamond.

15. The method of claim 4 wherein said diamond comprises a polycrystalline diamond.

16. The method of claim 1 further comprising finishing a surface of at least one film to permit transmission of visible and near-visible photons.

17. The method of claim 1 wherein said plural film stacking step achieves a mass concentration of isotope that satisfies a beginning of life stored energy.

18. The method of claim 17 further comprising pressing a plurality of stacked films.

19. The method of claim 1 further comprising mechanically retaining said plurality of stacked films.

20. The method of claim 4 further comprising stacking said diamond films with a photovoltaic cell film between at least two diamond films.

21. The method of claim 1 further comprising affixing at least one photovoltaic cell to a main surface of said stack parallel to the substrate layers.

22. The method of claim 1 further comprising affixing at least one photovoltaic cell to a side face of said stack.

23. The method of claim 1 further comprising providing an optical structure to gather light and direct it to a photovoltaic cell.

24. The method of claim 23 wherein said optical structure comprises at least one of mirrors and lenses.

25. The method of claim 1 further comprising forming a plurality of stacks, forming said plurality stacks into a cell, forming at least one other cell and wiring said cell to said at least one other cell.

26. The method of claim 25 further comprising assembling a plurality of cells into a module.

27. The method of claim 1 further comprising assembling said stack and said at least one photovoltaic cell into a non-pressure confinement vessel.

28. A method of converting energy comprising:

(a) providing a crystalline storage medium for stable storage of a primary energy source material;

(b) loading a source of primary energy that provides nuclear emissions into said storage medium;

(c) stressing said crystalline storage medium to produce a direct band gap material;

(d) generating photons within said crystalline storage medium; and

(e) converting energy from said generated photons into electrical energy.

29. The method of claim 28 wherein said photon generating step uses the Exciton mechanism.

30. The method of claim 28 wherein said photon generating step uses at least one of color centers, defects and vacancy mechanisms.

31. The method of claim 28 further comprising filling substantially all of the interstitial voids between the carbon atoms of the storage medium structure with an atom of said radioactive isotope.

32. The method of claim 28 wherein said stressing step comprises at least one of packing interstitial sites with atoms, growing said material with lattice mismatch and ion implantation.

33. An energy storage and conversion device for providing electric power comprising:

(a) a plurality of crystalline films, each made from a wide band-gap material, said wide band-gap materials having the ability to store in at least one of interstitial voids and inter-crystal grain boundaries, an isotope that emits decay energy;

(b) an isotope comprising a radionuclide material embedded in the voids and crystal structure of said wide band-gap material, said material being operative to generate nuclear particles that interact with the crystal atom electrons and to generate bound electron-hole pairs that, when recombination occurs, yield photons; and

(c) at least one layer of photovoltaic material for converting photons to electrical energy.

34. The device of claim 33 wherein said wide band gap material comprises one of diamond, SiC, GaN and AlN.

35. The device of claim 34 wherein said diamond comprises a single crystal diamond material.

36. The device of claim 34 wherein said diamond comprises a polycrystalline diamond material.

37. The device of claim 33 wherein said radionuclide material is operative to produce photons using the Exciton mechanism.

38. The device of claim 33 wherein said radionuclide material is operative to produce photons in direct band gap materials using at least one of color centers, defects and vacancy mechanisms.

39. The device of claim 34 wherein substantially all of the interstitial voids between the carbon atoms of the diamond structure are filled with an atom of a radioactive isotope.

40. The device of claim 39 wherein said atom comprises tritium.

41. The device of claim 33 wherein at least one of said films has a finish that permits transmission of visible and near-visible photons.

42. The device of claim 33 wherein said plurality of film are stacked and together achieve a mass concentration of isotope that satisfies a beginning of life stored energy.

43. The device of claim 42 further comprising a means for pressing together a plurality of stacked films.

44. The device of claim 42 further comprising a means for mechanically retaining said plurality of stacked films.

45. The device of claim 33 further comprising a stack of said wide band-gap films with at least one photovoltaic film between two wide band-gap films.

46. The device of claim 33 wherein said plural films are assembled in a stack and further comprising photovoltaic material adjacent to main surfaces of said stack and parallel to the stack of film layers.

47. The device of claim 33 wherein said plural films are assembled in a stack and further comprising photovoltaic material affixed to side faces of said stack of wide band-gap films.

48. The device of claim 33 further comprising an optical structure that gathers photons and direct them to said photovoltaic layers.

49. The device of claim 48 wherein said optical structure comprises at least one of mirrors and lenses.

50. The device of claim 33 wherein at least a first plurality of films and at least one layer of photovoltaic material comprise a first cell, and at least a second plurality of films and at least one layer of photovoltaic material

comprise a second cell, said device further comprising means for wiring together at least said first and second cells.

51. The device of claim 50 further comprising means for assembling said first and second cells into a module.

52. The device of claim 33 further comprising a non-pressure confinement vessel for containing said materials.

53. The device of claim 42 further comprising a reflective material applied to the assembled film stack in order to trap emitted photons and increase the likelihood of photon passage through the photovoltaic cells.

54. The device of claim 33 further comprising at least one of phosphors and wavelength shifting media to convert the emitted photons at a first frequency to a second frequency.

55. The device of claim 34 wherein said diamond film is produced by means of chemical vapor deposition (CVD) techniques.

56. The device of claim 33 wherein said isotope is loaded by a forced diffusion process.

57. The device of claim 33 wherein said isotope comprises at least one of tritium and krypton-85.

58. The device of claim 34 wherein said diamond material is stressed to enhance its performance as a direct band-gap material.

59. The device of claim 33 wherein said isotope exists in said crystal material at densities between 100ppm and 1,500,000 ppm.

60. The device of claim 33 wherein said isotope comprises at least one of molecular tritium, atomic tritium, atomic hydrogen, molecular hydrogen, krypton-85.

61. The device of claim 60 wherein said crystal material comprises wide band-gap materials having an ability to store an isotope that emits decay energy.

62. The device of claim 60 wherein said isotope provides nuclear emissions comprising at least one of neutrons and gamma ray photons and further comprises a crystalline energy conversion material.